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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,072	09/14/2000	John Border	PD-200053	1446

20991 7590 12/02/2003

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PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER	
EL CHANTI, HUSSEIN A	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 12/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/662,072	BORDER ET AL.	
	Examiner	Art Unit	
	Hussein A El-chanti	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is responsive to application filed on Sep. 14, 2000. Claims 1-60 are pending examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 30 are rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a credible asserted utility or a well established utility for the reasons set forth, one skilled in the art clearly would not know how to use the claimed invention.

Claims 1 and 30 are single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983). Claims 1 and 30 comprise means for facilitating communications in a network using a performance enhancing function.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7, 10-21, 25, 26, 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Alles et al., U.S. Patent No. 6,466,976 (referred to hereafter as Alles).

As to claim 1, Alles teaches a network apparatus comprising:

a performance enhancing proxy which facilitates communication between said network apparatus and other network entities by performing at least one performance enhancing function (see col. 7 lines 62-col. 8 lines 10 where the subscriber is allocated more network bandwidth according to the processing rules or the time of the day).

As to claim 2, Alles teaches the apparatus of claim 1 wherein said network apparatus is connected to other network entities via a first type of connection and other network entities via a second type of connection (see col. 9 lines 44-col. 10 lines 11)

As to claim 3, Alles teaches the apparatus of claim 2 wherein said performance enhancing proxy establishes multiple connections of the first type associated with different applications, said performance enhancing proxy including:

a spoofing element, which spoofs some of the multiple connections of the first type based on their associated applications (see col. 12 lines 39-67 and col. 9 lines 44-col. 10 lines 11, the processing rule processes packets receive from a designated IP address "SubsA" connected through one of the ports and discards all other packets).

As to claim 4, Alles teaches the apparatus of claim 3 wherein said spoofing element only spoofs connections of the first type associated with at least one of applications with high throughput and applications for which reduced startup latency is desired (see col. 12 lines 52-58).

As to claim 5, Alles teaches the apparatus of claim 3 wherein said spoofing element assigns spoofing resources including buffer space and control blocks to the spoofed connections (see col. 8 lines 4-10).

As to claim 6, Alles teaches the apparatus of claim 3 wherein said spoofing element spoofs connections using at least one spoofing rule based on destination address, source address, destination port number, source port number, options, a differentiated services (DS) field or combinations thereof (see col. 12 lines 39-67, the processing rule processes packets receive from a designated IP address "SubsA" connected through one of the ports and discards all other packets).

As to claim 7, Alles teaches the apparatus of claim 6 wherein said spoofing element defines the at least one spoofing rule in a spoofing profile (see col. 12 lines 39-45 and col. 2 lines 55-63, processing rules can be specified before communications is activated).

As to claim 10, Alles teaches the apparatus of claim 2 wherein said performance enhancing proxy establishes multiple connections of the first type said performance enhancing proxy including:

a protocol element which multiplexes multiple connections of the first type onto a single connection of the second type (see col. 9 lines 6-25).

As to claim 11, Alles teaches the apparatus of claim 2 wherein said performance enhancing proxy establishes multiple connections of the first type said performance enhancing proxy including:

a prioritization element which prioritizes connections of the first type to determine what priority level of the connection of the second type, each of the connections of the first type are assigned (see col. 9 lines 25-37).

As to claim 12, Alles teaches the apparatus of claim 11 wherein said prioritizing element prioritizes connections using at least one prioritizing rule based on destination address, source address, destination port number, source port number, a differentiated services (DS) field, a type of data contained within the connection or combinations thereof (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 13, Alles teaches the apparatus of claim 12 wherein said prioritizing element defines the at least one prioritizing rule in a prioritizing profile (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 14, Alles teaches the apparatus of claim 2 wherein said performance enhancing proxy establishes multiple connections of the first type associated with different applications, said performance enhancing proxy including:

a path selection element which selects a path for data associated with connections of the first type across connections of the second type or connections of other types (see col. 7 lines 62-col. 8 lines 10 and col. 9 lines 25-col. 10 lines 67).

As to claim 15, Alles teaches the apparatus of claim 14 wherein said path selection element can select up to N paths (N>1) where the Nth path is selected only if the (N-1) path fails (see col. 6 lines 1-34).

As to claim 16, Alles teaches the apparatus of claim 15 wherein said path selection element selects a path using at least one path selection rule based on priority, destination address, source address, destination port number, source port number, protocol, a differentiated services (DS) field or combinations thereof (see col. 12 lines 24-67).

As to claim 17, Alles teaches the apparatus of claim 16 wherein said spoofing element defines the at least one path selection rule in a path selection profile (see col. 6 lines 1-34).

As to claim 18, Alles teaches the apparatus of claim 2 wherein said performance enhancing proxy establishes multiple connections of the first type, said performance enhancing proxy including:

a compression/encryption element, which compresses and/or encrypts data associated with connections of the first type for transmission across connections of the second type (see col. 12 lines 24-38).

As to claim 19, Alles teaches the apparatus of claim 2 wherein the first connection uses a high layer protocol (see col. 12 lines 24-67).

As to claim 20, Alles teaches the apparatus of claim 2 wherein the first connection uses one of the Transmission Control Protocol (TCP) and the User Datagram Protocol (UDP) (see col. 12 lines 24-38).

As to claim 21, Alles teaches the apparatus of claim 2 wherein the second connection is a backbone connection (see col. 7 lines 27-34).

As to claim 25, Alles teaches the apparatus of claim 2 wherein said network apparatus is a component of a network gateway (see col. 7 lines 27-34).

As to claim 26, Alles teaches the apparatus of claim 2 wherein said network apparatus is a component of a host (see fig. 1 and its corresponding illustration).

As to claim 29, Alles teaches the apparatus of claim 2 wherein said network apparatus is a component of a router (see col. 7 lines 27-34).

As to claim 30, Alles teaches a method comprising:

facilitating communication between a network apparatus and other network entities by performing at least one performance enhancing function (see col. 7 lines 62-col. 8 lines 10 where the subscriber is allocated more network bandwidth according to the processing rules or the time of the day).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8, 22, 24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Dillon, U.S. Patent No. 6,519,651.

As to claim 8, Alles teaches network apparatus is connected to other network entities via a first type of connection and other network entities via a second type of connection (see the rejection of claim 2).

Alles does not explicitly teach the limitation "a spoofing element which spoofs acknowledgements". However Dillon teaches an apparatus for network access having a spoofing element that spoofs acknowledgements (see col. 15 lines 14-30).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by implementing an acknowledgement spoofing element as in Dillon because doing so would allow the faster communication over the network apparatus by discarding packets with spoofed acknowledgements and therefore allocating more network resources for processing of other data packets received by the network.

As to claim 22, Alles does not teach the limitation "backbone connection is via a wireless link". However Dillon teaches a backbone connection via a wireless link (see col. 4 lines 39-56).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by incorporating a backbone connection via a wireless link as taught by Dillon because doing so would allow the user to communicate with the communication network using wireless communication and therefore being able to send communicate from any geographic location enabled with wireless transmission and thus overcoming the need to use a network connected workstation which usually has a fixed geographic location.

As to claim 24, Dillon teaches the wireless link is a satellite link (see col. 4 lines 39-56).

As to claim 27, Dillon teaches network apparatus is a component of a hub (see col. 12 lines 40-47).

As to claim 28, Dillon teaches the network apparatus is a component of a VSAT (see col. 13 lines 31-38).

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Dillon further in view of Jorgensen, U.S. Patent No. 6,590,885.

Alles and Dillon do not teach the limitation "the wireless link has high latency and high error rate". However Jorgensen teaches a wireless transmission system with high latency and high error rate (see col. 75 lines 5-40).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by using the network apparatus in wireless link has high latency and high error rate as taught by Jorgensen because doing so would allow the user to minimize the data flow according to Alles's path profiles and therefore resulting in a faster communication and less error rate.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alles in view of Klaus, U.S. Patent No. 5,892,903.

Alles teaches network apparatus is connected to other network entities via a first type of connection and other network entities via a second type of connection (see the rejection of claim 2).

Alles does not explicitly teach the limitation "a spoofing element which spoofs a three way handshake". However Klaus teaches an apparatus in a communication network having a spoofing element that spoofs a three-way handshake communication (see col. 9 lines 43-col. 10 lines 37).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to modify Alles by incorporating a three way handshaking spoofing element as taught by Klaus because doing so would allow the faster communication over the network apparatus by allocating more window size using three way handshaking and therefore allocating more network resources for processing of other data packets received by the network.

7. Claims 31-60 do not teach or define any additional limitation over claims 1-30 and therefore are rejected for similar reasons.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein El-chanti whose telephone number is (703)305-4652. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone numbers for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Hussein El-chanti

Date: Nov. 13, 2003

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